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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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CHRISTOPHER P. MAIORANA, P.C.
24025 GREATER MACK
SUITE 200
ST. CLAIR SHORES, MI 48080

EXAMINER

YEH, EDITH M

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 10/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

116

Office Action Summary

Application No.

09/436,522

Applicant(s)

SHA ET AL.

Examiner

Edith M Yeh

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-16, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 10-11, 17 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

1. The abstract should be in narrative form. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The term "said command signal" in line 5 of the abstract is suggested to be changed to "the command signal".

2. The disclosure is objected to because of the following informalities: On page 4 lines 4 and 15, the numeral 20 should be 22. On page 10 line 8, "input divider 144" should be "PLL 146". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 16** recites the limitation "the step of optimizing" in line 1-2 of this claim. There is insufficient antecedent basis for this limitation in the claim. Add "the step of optimizing" in this claim or its parent claim 14 or 15 before reciting this limitation.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claim 1-2, 4-5, 12-15, & 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Harding et al. (U.S. Patent 6292507 B1).

Claims 1, 13, & 14, Harding et al. disclose a method and an apparatus (FIG.3 & FIG.4) comprising a circuit (FIG.3) to generate a clock signal (136 FIG.3) in response to (i) a reference signal (112 FIG.3), (ii) a sequence of spread spectrum ROM codes (156 FIG.3), and (iii) a command signal (182 FIG.4); and another circuit (190 FIG.4) to synchronize command signal (182 FIG.4) to a feedback signal (I2/I3 FIG.4). The sequence of spread spectrum ROM codes is generated according to a predetermined mathematical formula (column 1 lines 22-30, column 5, line 7-column 6 line 23 of U.S. Patent 5631920), and optimized in accordance with predetermined criteria (Abstract, profiles FIG.8, & FIG.9).

Claim 2, Harding et al. discloses a spread spectrum clock generator circuit (FIG.3) wherein the clock signal is spread spectrum modulated (136 FIG.3).

Claim 4, Harding et al. discloses the apparatus is used with a motherboard or CPU (column 1 lines 19-30, FIG.1 & column 2 lines 59-63 of U.S. Patent 5631920).

Claims 5 & 19, Harding et al. disclose a circuit to generate one or more control signals (194 & 192 FIG.3) in response to (i) the command signal (182 FIG.4), and (ii) the feedback signal (I2/I3 FIG.4) to synchronize the command signal to the feedback signal.

Claims 12, Harding et al. disclose a computer program simulating transient behavior of the apparatus to optimize the codes (column 20 lines 4-12).

Claim 15, Harding et al. disclose steps of selecting a number of ROM codes according to predetermined mathematical formula to generate a spread spectrum modulation signal (column 1 lines 19-29, column 5 line 12-column 6 line 24 of U.S. Patent 5631920).

Claims 18, Harding et al. disclose controlling a feedback divider (138 FIG.3) with the sequence of spread spectrum ROM codes (164 FIG.3).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardin et al. (U.S. Patent 6292507 B1) in view of Sha U.S. 6377646).

Harding et al. fails to specify the predetermined minimum and maximum frequencies as criteria to optimize the spread spectrum ROM codes. However Sha teaches the criteria (column 2 lines 32-36). Therefore, at the time of the invention, it would have been obvious to one of

ordinary skill in the art to have the frequency criteria taught by Sha in Harding's Spread Spectrum Clock Generator to have frequency bound to reduce EMI.

Allowable Subject Matter

Claims 3, 6-8, 10-11, 17, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-8, and 12-13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 and 12-13 of copending Application No. 09436155 respectively. Although the conflicting claims are not

identical, they are not patentably distinct from each other because this application has broader claims that can be read on the claims of Application No. 09436155.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Yeh whose telephone number is 7033053416. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 7033054714. The fax phone numbers for the organization where this application or proceeding is assigned are 7038729314 for regular communications and 7038729314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 7033054800.

Edith Yeh
September 30, 2002


STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600